COMMISSION OF THE EUROPEAN COMMUNITIES

COM(75) 558 final
Brussels, 18 December 1975

UNIVERSITY OF PITTSBURGH LIBRARY
DEC 26 1975

HILLMAN

Proposal for a

COUNCIL DIRECTIVE

on the approximation of the laws of the Member States relating to the permissible sound emission level for tower cranes

---

Proposal for a

COUNCIL DIRECTIVE

on the approximation of the laws of the Member States relating to the permissible sound emmission level for current generators for welding

---

Proposal for a

COUNCIL DIRECTIVE

on the approximation of the laws of the Member States relating to the permissible sound emission level for current generators for power supply

---

(presented to the Council by the Commission)

EXPLANATORY MEMORANDUM

I. GENERAL

Acting on a proposal from the Commission, the Council has included the sector "constructional plant and equipment" in the supplement of 21 May 1973 to the General Programme of 28 May 1969 aimed at eliminating technical obstacles to trade in industrial products.

In this sector there are barriers to trade, which were brought to the notice of the Commission by the Committee for European Construction Equipment.

In the timetable attached to the Industrial Policy Programme of 17 December 1973, the Council has established 1 January 1977 as the latest date for the Commission to forward the special directives on constructional plant and equipment for adoption by the Council before 1 January 1978. With the object of "phasing" these special directives, the three current proposals will be presented by the Commission as from 1 January 1976. Other proposals will be spread out over the year 1976 in accordance with the harmonization requirements.

In regard to the sound level of airborne noise, the approximation of laws in this sector also ties in with the projects adopted in the Community Programme of Action on the Environment of 20 July 1973 ; the approximation of laws on the lines laid down in these special directives, which supersede the outline directive, should appreciably reduce the level of airborne noise and thus make a direct contribution to the improvement of the environment.

../..

The three appliances to which these proposals refer are tower cranes, current generators for power supply and current generators for welding. Although these three items of equipment are not, from the economic standpoint, the most important among the various types of constructional plant and equipment, they are undeniably the noisiest after jackhammers. The latter have already been dealt with by the Commission in a proposal for a directive of 20 December 1974* and it is in the pursuit of the same aim of controlled sound pollution that these three proposals are presented.

Regulatory concepts in this connection differ so widely from one Member State to another that it was only by dint of considerable effort that the Commission was able to fulfil its commitments in accordance with the timetable laid down by the Council in its resolution on industrial policy of 17 December 1973. According to that timetable, the Commission was required to forward to the Council by 1 January 1975 an outline directive defining the common procedure to be followed in this sector and a first special directive on permissible sound levels.

The purpose of the following proposals for directives is to guarantee the free movement of goods by improving the protection of the environment and of the health of the general public.

The existence of technical barriers is due to a disparity between regulations relating to permissible sound levels and, although France and West Germany are the first to have introduced regulations for the three appliances concerned here, the other countries of the Community have also begun the process of establishing national regulations in this field.

The West Germany Government has notified the Commission of a draft regulation providing for progressive limitation of the sound level of tower cranes and the German decree, dated 13 July 1974, is in force.

---

* OJ C82 of 14 April 1975

The French Government has informed the Commission of two drafts orders relating to the limitation of the level of airborne noise emitted by current generators for power supply and for welding.

In the field of standardization, the ISO (International Organization for Standardization) has for some years been studying draft standards for noise emitted by constructional plant and equipment.

As the trade in constructional plant and equipment manufactured in the Community countries for transcends the frontiers of the Community, it should be possible to consider applying the principle of strict reference to ISO standards in the event of such standards being published between the time these proposals for directives are presented and the time they are adopted by the Council.

II. HARMONIZATION SOLUTION

The harmonization solution proposed by the Commission is the one known as "optional", i.e., this directive is not intended to take the place of the laws and regulations in force in the Member States : in regard to their domestic markets it will merely be an addition to existing laws and regulations.

In other words, since this directive is not la mandatory replacement for the provisions currently in force in the Member States, a manufacturer who is not interested in the wider market offered by the Community can continue manufacturing in accordance with the laws in force in the country in which he intends to market his product. He may also try out technical innovations.

If, on the other hand, a manufacturer's interest in a particular class of equipment prompts him to seek a much broader potential outlet, such as that afforded by the Community, he will - if he complies the terms of this directive - have the assurance of seeing his equipment accepted on the markets of all the other Member States.

../..

A number of national experts attached to the Commission have expressed a reservation against optional harmonization, their view being that total harmonization is more likely to ensure protection against sound pollution which would be the same for all Member States.

It is thus as well to point out here that each Member State, on its own territory, is free to accord a "total" status to each directive by making it exclusive.

Since type-approved equipment is involved, there can be no risk of confusing a machine that conforms to the harmonized specifications with one that would not, which thus does not give sufficient grounds for total harmonization.

III. COMMENTS ON THE THREE DIRECTIVES

These three proposals for directives differ only in their scope and in the permissible levels of sound emission that are given in a table. These points will therefore be taken up after the comments relating to the rest of the proposals, which are common to the three proposals for directives :

(1) The optional harmonization choice has already been explained in the preceding chapter.

(2) The permissible levels of sound emission are presented in a table covering two successive stages, the first up to 30 June 1980, the second after that date. The first is based on the best applied technology ; the second takes into consideration the results of studies made in laboratories and is thus more stringent.

This procedure is of definite advantage to the manufacturer. Bearing the dates of application in mind, he knows what is in store and can make the necessary arrangements. For a given group of sound sources, the emission levels are scaled in accordance with various parameters (power, size, or weight). When studies have enabled a correlation to be established between sound level emitted and one of the parameters, it is taken into account in the directive. The levels are accordingly presented in a double-entry table. The dates of application are also given.

../..

(3) The type-approval procedure refers explicitly to the outline directive, the proposal for which was presented to the Council by the Commission one year ago * (proposals for Council Directives on the approximation of the laws of the Member States relating to constructional plant and equipment and to the measurement of the level of sound emission from constructional plant and equipment). It is indispensable for these procedures to be the same for all constructional equipment except with regard to structural details. It should be pointed out that provision is made for the sound emission level to be indicated and guaranteed by the manufacturer.

(4) The clause concerning free movement is that which is normally used in all proposals for directives aimed at removing technical barriers and thus does not call for any particular comment.

(5) The Committee on Adaptation to Technical Progress provided for in these proposals is the one which is common to all constructional equipment, being defined in the outline-directive proposal already mentioned.

(6) The other clauses of these proposals are routine and do not call for any particular comments :

- notification of the authorities who are competent as regards type approval ;
- introduction ;
- Member States to which addressed.

IV. PROPOSAL FOR A DIRECTIVE RELATING TO TOWER CRANES

Although they are hoisting devices , tower cranes are covered by a special directive where their sound emission level is concerned, in accordance with the scope of the outline proposal for a directive relating to constructional plant and equipment. This distinction feature is due to the fact that, in the event of technical progress, there is to be only one committee for constructional equipment whose remit extends to sound levels from constructional hoisting equipment. The latter type, comprising tower cranes, is not different from other constructional equipment except with regard to the mechanical features of their construction ; as regards the other aspects, such as noise and road movement, this distinction has no further significance.

* OJ. C82 of 14 April 1975.

The sound emission levels proposed for the first stage correspond to the present status of the best existing technology (two-thirds of the tower cranes sold on the market).

The second stage corresponds to an appreciable improvement in this technology on the part of all manufacturers, but has been proposed in accordance with the results of laboratory studies carried out with the co-operation of the bodies concerned.

V. PROPOSAL RELATING TO CURRENT GENERATORS FOR WELDING

Only the current generators for welding that are used on building sites (in the open air) are considered.

In the same way as for tower cranes, the permissible sound emission levels were proposed with due regard to the same criteria in respect of status of technology and in cooperation with the bodies concerned. The line for dividing current generators for welding into two groups was chosen at 200 amperes so as to be in line with technological reality and not to penalize small-scale equipment by subjecting it to sound suppression proportionally more costly than for large-scale equipment.

VI. PROPOSAL RELATING TO CURRENT GENERATORS FOR POWER SUPPLY

The sound levels proposed for the two successive stages are covered by the comments already made on the two preceding proposals.

To take into account the wide variety of these products, it was agreed to take into consideration lines of demarcation between these categories which correspond to an almost non-existent market (8kW, 60kW, 240kW) so that there would be no doubt as to how to fit products already found in large numbers on the market into any one of these categories.

./.

The proposed permissible sound emission levels take into account both the existing technology and that which may be anticipated on the basis of laboratory trials, mainly with regard to the small power generators below 8kW, which, because of their high degree of mobility (portable generators), are always used in the immediate vicinity of dwellings.

VII. CONSULTATION WITH BODIES CONCERNED

When these proposals for directives were being drawn up, the Commission widely consulted all the bodies concerned.

VIII. CONSULTATION WITH THE EUROPEAN PARLIAMENT AND THE ECONOMIC AND SOCIAL COMMITTEE

In pursuance of the provisions of the second paragraph of Article 100 of the Treaty, it is necessary to obtain the Opinion of these two bodies.

In the case of some Member States, implementation of the requirements laid down in the proposals for directives necessitates amendment of their laws.

../..

PROPOSAL FOR A COUNCIL DIRECTIVE

on the approximation of the laws of the Member States relating to the permissible sound emission level for tower cranes

---

The Council of the European Communities,

Having regard to the Treaty establishing the European Community, and in particular Article 100 thereof,

Having regard to the proposal from the Commission,

Having regard to the Opinion of the European Parliament,

Having regard to the Opinion of the Economic and Social Committee,

Whereas the construction and the inspections of the tower cranes in the Member States are the subject of mandatory provisions which differ from one Member State to another and consequently hinder trade in such tower cranes ; whereas it is therefore necessary to approximate these laws ;

Whereas Council Directive of on the approximation of the laws of Member States relating to common provisions for constructional plant and equipment has laid down the procedures for EEC type approval ; whereas it is necessary, in compliance with that directive, to lay down the harmonized requirements which each category of equipment must satisfy ;

../..

Whereas, in view of the considerable effect of the noise emitted by constructional plant and equipment on the workers safety and the environment, action must be taken at the Community level to bring about progressive and appreciable reduction in the permissible sound level for tower cranes ;

Whereas it is necessary to fix the permissible sound emission level from 1 July 1980 at 5dB below that permissible before that date ;

HAS ADOPTED THIS DIRECTIVE :

Article 1

This Directive applies to the permissible sound emission level for tower cranes intended to be used on building sites.

For the purposes of this Directive, "tower crane" means a mechanically powered lifting device capable of being dismantled, possessing a tower or a derrick capable of being dismantled and a boom (either horizontal or inclined).

Article 2

2.1. Member States shall approve any type of tower crane to be used on building sites whose sound emission level, measured in the manner laid down in Annex I, does not exceed the permissible sound emission level shown, by category, in the following table :

Categories of tower crane	Permissible sound emission level Acoustic power in dBA/ referred to 1pW	
	up to 30 June 1980	as from 1 July 1980
All tower cranes	108	103

2.2. An application for EEC type approval in respect of the sound emission level of a type of tower crane intended to be used on building sites shall be accompanied by an information document, conforming to the model shown in Annex II.

../..

2.3. For each type of tower crane which it approves for use on building sites, the Member State shall complete all the sections of the EEC type-approval certificate, the model of which is given in Annex II to the Council Directive of

2.4. For each tower crane to be used on building sites, which is constructed in conformity with the EEC-approved type, the manufacturer shall complete a certificate of conformity, the model of which is given in Annex II to the Council Directive of , and shall state :

- in the "harmonized requirement "column : permissible sound power level dBA/referred to 1pW.

- in the relevant columns : the number and date of the type-approval certificate.

2.5. Each tower crane to be used on building sites which has been constructed in conformity with the EEC-approval type shall bear a clear, indelible and durable mark indicating the sound emission level guaranteed by the maker.

Article 3

No Member State may prohibit, on grounds relating to the permissible sound level, the sale, entry into service or use for its intended purpose of any new tower crane intended for use on building sites which is accompanied by the certificate of conformity referred to in Article 2.4 above, or which is marked as described in Article 2.5 above.

../..

Article 4

Amendments necessary to adjust the requirements of the Annexes to take account of technical progress shall be adopted in accordance with the procedure laid down in Article 12 of the Council Directive of

Article 5

Each Member State shall communicate to the other Member States and to the Commission a list of the authorities authorized to carry out type-approval examinations on tower cranes to be used on building sites and to issue EEC type-approval certificates with respect to the permissible sound emission level ; it shall also forward a list of the recipients of the correspondence referred to in Articles 6, 8 and 9 of the Council Directive of

Notification shall also be made to the other Member States and to the Commission of any changes in such lists.

Article 6

Introduction :

1. The Member States shall adopt and publish, before 1 January 1978, the provisions containing the requirements needed to comply with this Directive and shall forthwith inform the Commission thereof.

   They shall apply these provisions with effect from 1 July 1978.

2. Once notification of this Directive has been effected, the Member States shall, in sufficient time to enable it to submit its comments, inform the Commission of all draft laws, regulations or administrative provisions which they intend to adopt in the field covered by this Directive.

Article 7

This Directive is addressed to the Member States.

Done at Brussels, (date)

For the Council
The President :

../..

ANNEX I

INTRODUCTION

This test method is applicable to tower cranes for use on building sites and lays down the test procedures for measuring the sound emission level of these devices with a view to EEC type approval. These procedures are in conformity with the requirement specified in the Annex to the Council Directive of on the "measurement of the sound emission level of constructional plant and equipment".

TEST METHOD FOR TOWER CRANES
FOR USE ON BUILDING SITES

The whole of the Annex to the Council Directive of on the measurement of the sound emis ion level of constructional plant and equipment * is applicable to tower cranes for use on building sites subject to the special method of application described below :

1. Purpose

The purpose of this Annex is to present the specifications of a method for determining the sound power level emitted by the hoisting winches of gear tower cranes as defined in Article 1 of this Directive.

The other gear of the tower cranes must not emit more noise than the hoisting winch. This must be verified by a simple comparative inspection with a sonometer when type approval of the tower crane is requested.

* Reference : OJ C82 of 14 April 1975
or R/67/75 (E009) of 8 January 1975.

../..

Article 5.2 : Source location

The crane shall be installed and mounted in a position which is typical of normal usage. If several possibilities exist, they must be described in the test report. When the hoisting winch is situated on the jib, the height below the crane hook shall be at least 12 m.

Article 5.4 : Operation of source during test

Noise emission measurements are taken (during raising and lowering) while the hoisting winch is operating in the following manner :

(a) without load, at the rated hoisting speed laid down by the constructor ;

(b) at maximum speed and under maximum hoisting load corresponding to the capacity laid down by the constructor.

The greater of the two averages (raising or lowering) shall be recorded.

Article 6.1 : Measurement surface and distance

The measurement surface depends on the location of the hoisting winch on the crane (Fig. 1).

(a) Ground-level hoisting winch (Fig.1,I)

When the hoisting winch is located at ground level, the measurement surface shall be a hemisphere with, in principle, a radius of 4 m, the centre of which shall be the projection of the geometrical centre of the ground-level winch.

(b) Hoisting winch on jib (Fig. 1,II)

When the hoisting winch is located on the jib, the measurement surface shall be a sphere with a radius of, in principle, 4 m, the centre of winch corresponds to the geometrical centre of the winch.

../..

Article 6.2 :Location of the microphones

(a) Hoisting winch at ground level

When the hoisting mechanism is located at ground level, 12 measuring points shall be taken into consideration as laid down in the Annex to Council Directive . . . . . .

(b) Hoisting winch on the jib

When the hoisting winch is located on the jib of the crane, the measuring points shall be located as shown in Fig. 2.

Four measuring points on a horizontal plane passing through the geometrical centre of the winch (H = h/2)

$$\text{with } L = R \cdot \frac{\sqrt{2}}{2} = 2.80 \text{ m}$$

$$\text{and } d = L - \frac{\ell}{2} = 2.80 \text{ m} - \frac{\ell}{2}$$

L = half-distance between two consecutive measuring points

ℓ = length of winch (along axis of jib)

b = width of winch

h = height of winch

d = distance between microphone support and winch in direction of jib.

The other two measuring points shall be located on the sphere and the vertical line passing through the geometrical centre of the winch.

../..

Article 6.3.1: Conditions in which measurements are taken

The sound levels are recorded for three seconds in the conditions laid down in Section 5.4. before braking begins and throughout the maximum braking period until the hook has reached a complete stop.

NB : At the moment when braking takes effect, there is often a sound impulse of very short duration. This acoustic signal is not taken into consideration for the average but is mentioned in the test report.

Article 7.1 : Calculation of sound pressure level Lp on measurement surface

The same method of calculation as that laid down in the Annex to Council Directive , with

$$Lpi = 10 \log \frac{1}{3 + tf} \cdot \left[10^{0.1\ L1i} \cdot 3 + 10^{0.1\ L2i} \cdot tf \right]$$

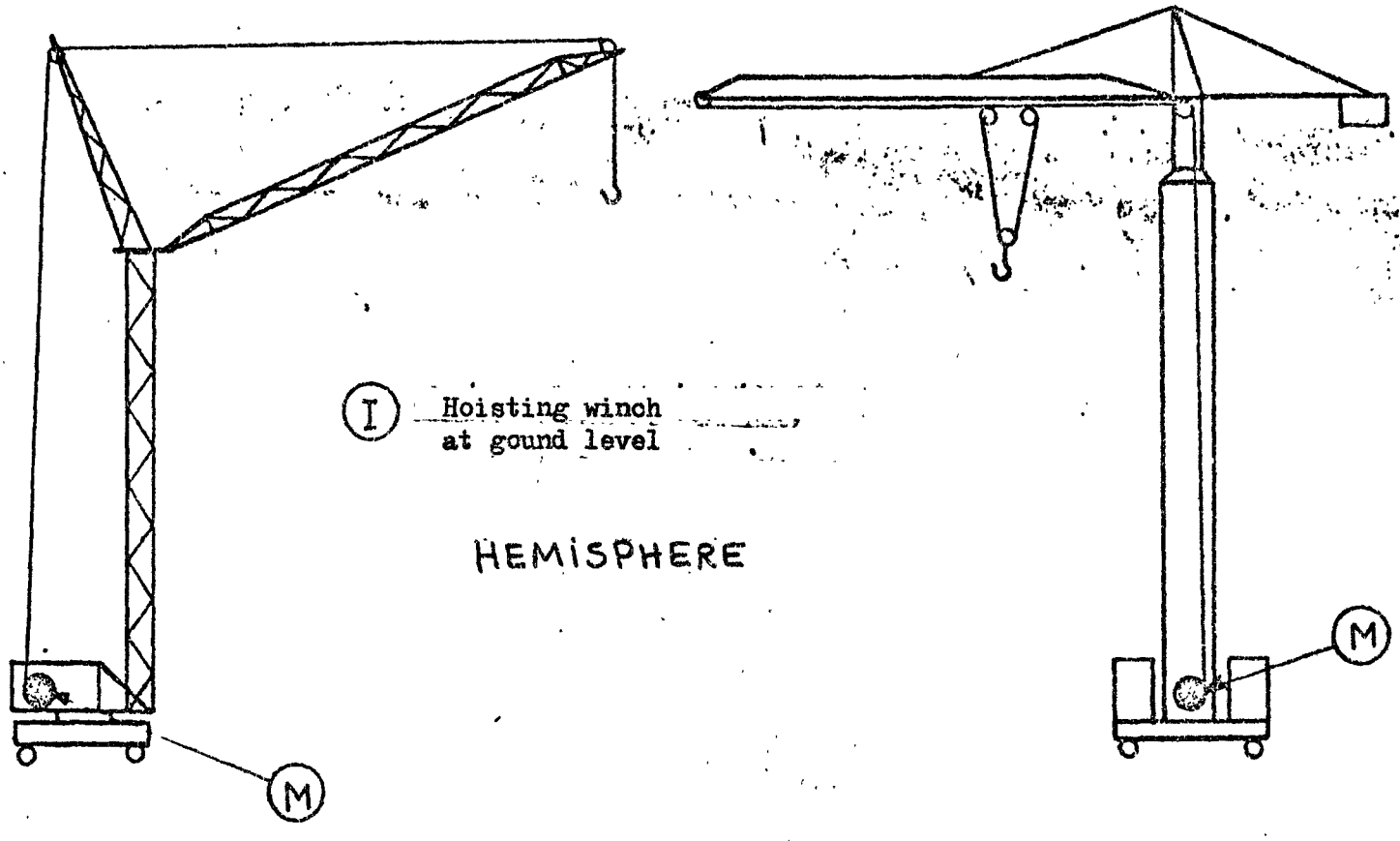
tf = braking time in seconds until hook reaches standstill

L_{1i} = maximum sound level during three seconds' measurement under the conditions laid down in Section 6.3.1. at measuring point i.

L_{2i} = the maximum sound level during braking at measuring point i.

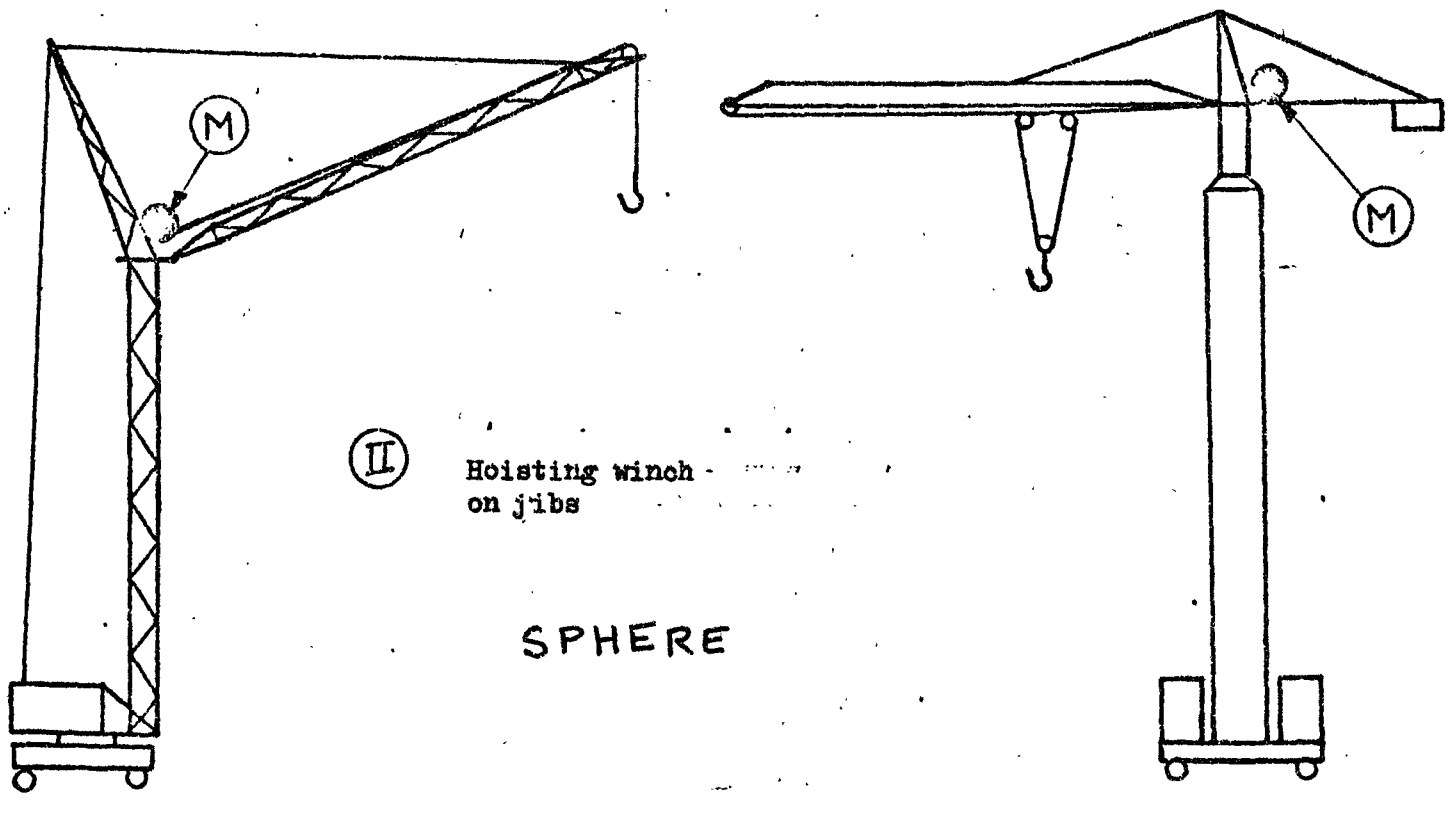
Annex B and part II (on-site method) are not to be taken into consideration.

MEASUREMENT SURFACE ACCORDING
TO POSITION OF HOISTING MECHANISM



(I) Hoisting winch at gound level

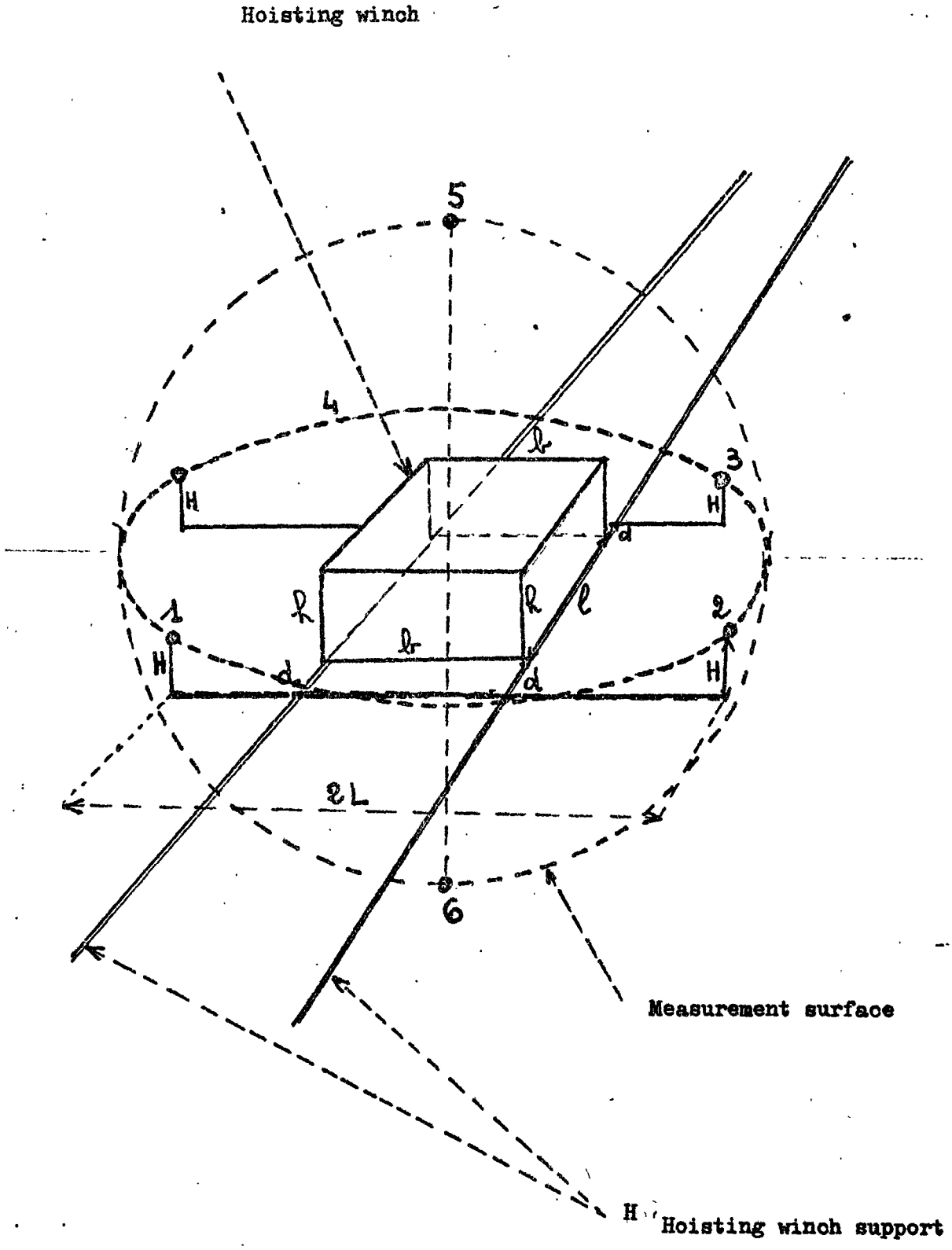
HEMISPHERE



(II) Hoisting winch on jibs

SPHERE

(M) Hoisting winch



Arrangement of measuring points when the hoisting winch is located on the jib.

ANNEX II

Model of information document for a type of tower crane intended to be used on building sites with respect to EEC type approval of the permissible sound emission level

---

0. General

0.1. Make (name of undertaking)

0.2. Model and commercial designation (mention any variants)

0.3. Type

0.4. Category

0.5. Name and address of manufacturer

0.6. Name and address of manufacturer's authorised representative (if any)

0.7. Location of statutory data plates and inscriptions and method of fixing

1. Dimensions :

2. Operation :

DRAFT PROPOSAL FOR A COUNCIL DIRECTIVE

on the approximation of the legislation of Member States relating to the permissible sound emission level of current generators for welding

---

The Council of the European Communities,

having regard to the Treaty establishing the European Economic Community and particularly Article 100 thereof ;

having regard to the proposal by the Commission ;

having regard to the opinion of the European Parliament ;

having regard to the opinion of the Economic and Social Committee ;

whereas the Council Directive of , on the approximation of the laws of the Member States relating to common provisions for constructional plant and equipment has laid down the procedures for EEC type approval ; whereas it is necessary, in compliance with that directive, to lay down the harmonized requirements which each category of equipment must satisfy ;

whereas certain Member States have notified the Commission of draft texts concerning the establishment of limit values for the sound emission level for current generators for welding ;

../..

whereas, in view of the considerable effect of the noise emitted by constructional plant and equipment on workers safety and the environment and, having regard to draft texts referred to above, action must be taken at Community level to bring about a progressive and appreciable reduction in the permissible noise level for current generators for welding ;

whereas it is necessary to reduce the permissible sound emission level with effect from 1 January 1980 by 5 dB in relation to the level permitted prior to that date ;

HAS ADOPTED THIS DIRECTIVE :

../..

Article 1

This Directive applies to the permissible sound emission level of current generators for welding used on building sites.

Article 2

2.1. Member States shall approve any type of current generator for welding whose sound emission level, measured in the manner laid down in Annex I, does not exceed the permissible sound emission level shown, as a function of the rated maximum current for generators for welding and of the date, in the following table :

Rated maximum current for current generators for welding	Permissible sound emission level acoustic power in dBA/referred to 1 pW	
	up to 30 June 1980	as from 1 July 1980
Not greater than 200 A	107	102
Greater than 200 A	102	98

2.2. An application for EEC type approval in respect of the sound emission level of a current generator for welding shall be accompanied by an information document conforming to the model shown in Annex II.

2.3. For each type of current generator for welding which it approves, the Member State shall complete all the sections of the EEC type-approval certificate, the model of which is given in Annex I to the Council Directive of . . . . . .

../..

2.4. For each current generator for welding constructed in conformity with the EEC-approved type, the manufacturer shall complete a certificate of conformity, the model of which is shown in Annex II to the Council Directive of and shall state :

- in the "harmonized requirements" column : permissible sound power level dBA/referred to 1 pW

- in the relevant columns : the number and the date of the type-approval certificate.

2.5. Each current generator for welding, constructed in accordance with the EEC-approved type, shall bear a clear, indelible and durable mark indicating the sound emission level guaranteed by the maker.

Article 3

No Member State may prohibit, on grounds relating to the permissible sound emission level, the sale, the entry into service or the use for its intended purpose of any new current generator for welding which is accompanied by the certificate of conformity referred to in Article 2.4 above, or which is marked as described in Article 2.5 above.

Article 4

Amendments necessary to adjust the requirements of the Annexes to take account of technical progress shall be adopted in accordance with the procedure laid down in Article 12 of the Council Directive of

../..

Article 5

Each Member State shall forward to the other Member States and to the Commission the list of the authorities authorized to carry out type-approval examinations on current generators for welding and to issue the EEC type-approval certificates with respect to the permissible sound emission level ; it shall also forward a list of the recipients of the correspondence referred to in Articles 6, 8 and 9 of the Council Directive of

Notification shall also be made to the other Member States and to the Commission of any change in such lists.

Article 6

Introduction :

1. The Member States shall adopt and publish before 1 January 1978, the provisions containing the requirements needed to comply with this Directive and shall forthwith inform the Commission thereof.

   They shall apply these provisions with effect from 1 July 1978.

2. Once notification of this Directive has been effected, the Member States shall in addition inform the Commission, in sufficient time to enable it to submit its comments, of all draft laws, regulations or administrative provisions which they intend to adopt in the field covered by this Directive.

Article 7

This Directive is addressed to the Member States.

Done at Brussels, ...
(date)

For the Council :

the President :

ANNEX I

SCOPE

This test method is applicable to current generators for welding ; it lays down the test procedures for the measurement of the sound emission level of these devices with a view to EEC type approval. These procedures are in conformity with the requirements specified in the Annex to the Council Directive of on the "measurement of the sound emission level of constructional plant and equipment".

TEST METHOD FOR CURRENT GENERATORS FOR WELDING

The whole of the annex to the Council Directive of on the measurement of the sound emission level of constructional plant and equipment* is applicable to current generators for welding subject to the special method of application described below:

Article 5.2 : Source location

The source to be tested shall be installed and mounted on a plane formed by a hard, reflecting surface of dimensions such that the projections of the microphones are within the measurement area. The hard surface shall be composed of concrete, asphalt or a similar dense material. In locating the source the site where the test is to take place, it is important that sufficient space be allowed so that the measurement surface can enclose the machine in accordance with the requirements of Section 6.1.

The source shall be located at a sufficient distance from any reflecting surface so that the requirements given in the Annex are satisfied on the test site.

../..

* Reference : O J C82 of 14 April 1975

Article 5.4 : Operation of source during test

During the acoustical measurements, the current generator for welding shall have reached its equilibrium temperature corresponding to the load under consideration and be operating in stable conditions.

The current generator for welding shall deliver, on a non-inductive resistance load, the rated welding current as specified in Recommendation ISO/R 700-1968, first edition, 1968.

The generators mounted on supports (on skids) shall be placed on trestles 40 cm above the measurement plane.

Article 6.1.2 : Selection of measurement surface

The measurement surface to be used for the test shall be a hemisphere with a radius of 4 m when the greatest dimension of the generator to be tested is not greater than 1.5 m.

It shall be a hemisphere with a radius of 10 m when the greatest dimension of the generator to be tested is greater than 1.5 m.

Annex B gives the coordinates for the measuring points.

The centre of the hemisphere is the vertical projection on the reflecting plane of the geometrical centre of the source (see Annex B).

Article 6.2.2 : need not be taken into consideration.

Annex B

Article B.2 : need not be taken into consideration.

ANNEX II

Model of information document for a type of current generator for welding with respect to EEC type approval in respect of the permissible sound emission level

0. General :

0.1. Make (name of undertaking)
0.2. Model and commercial designation (mention any variants)
0.3. Type
0.4. Category
0.5. Name and address of the manufacturer
0.6. Name and address of the manufacturer's authorized representative (if any)
0.7. Location of statutory data plates and inscriptions and method of fixing.

1. Dimensions and physical appearance :

1.1. Length and width of casing, height above ground
1.2. Physical appearance of generator : support mounted (skids) - trailer

2. Operation :

2.1. Make, type and speed of drive motor
2.2. Make and type of generator or alternator
2.3. Rated welding current
2.4. Rated maximum current

PROPOSAL FOR A COUNCIL DIRECTIVE

on the approximation of the laws of the Member States relating to the permissible sound emission level of current generators for power supply

The Council of the European Communities,

Having regard to the Treaty establishing the European Community, and in particular Article 100 thereof ;

Having regard to the proposal from the Commission ;

Having regard to the Opinion of the European Parliament ;

Having regard to the Opinion of the Economic and Social Committee ;

Whereas the Council Directive of on the approximation of the laws of the Member States relating to common provisions for construction plant and equipment has laid down the procedures for EEC type approval ; whereas it is necessary, in compliance with that Directive, to lay down the harmonized requirements which each category of equipment must satisfy ;

Whereas certain Member States have notified the Commission of draft texts relating in particular to the determination of limit values for the sound emission levels of current generators for power supply ;

../..

Whereas, in view of the considerable effect of the noise emitted by constructional plant and equipment on workers safety and the environment, and having regard to draft texts referred to above, it is necessary at the Community level to bring about a progressive and appreciable reduction in the permissible sound emission level for current generators for power supply ;

Whereas it is necessary to fix the permissible sound emission level from 1 January 1980 at 5 dB below that permissible before that date ;

HAS ADOPTED THIS DIRECTIVE :

../..

Article 1

This Directive applies to the permissible sound emission level of current generators for power supply used on building sites.

Article 2

2.1. Member States shall approve any type of current generator for power supply whose sound emission level, measured in the manner laid down in Annex I, does not exceed the permissible sound emission level shown, as a function of the rated power expressed in kW for the generators for power supply and of the date, in the following table :

Electric power of the current generator for power supply	Permissible sound emission level Acoustic power in small dBA/referred to 1 pW	
	up to 30 June 1980	as from 1 July 1980
Not greater than 8 kW	103	95
> 8 kW and ≤ 60 kW	103	98
> 60 kW and ≤240 kW	105	100
>240 kW	107	102

2.2. An application for EEC type approval in respect of the sound emission level of a type of current generator for power supply shall be accompanied by an information document confirming to model shown in Annex II.

2.3. For each type of current generator for power supply which it approves, the Member State shall complete all the sections of the EEC type approval certificate, the model of which is shown in Annex I to the Council Directive of

2.4. ~~For each current~~ generator for power supply constructed in conformity with the EEC approved type, the manufacturer shall complete a certificate of conformity, the model of which is shown in Annex II to the Council Directive of and shall state :

- in the "harmonized requirements" column : permissible sound power level dBA/referred to 1 pW

- in the relevant columns : the number and the date of the type approval certificate.

2.5. Each current generator for power supply constructed in conformity with the EEC approved type shall bear a clear, indelible and durable mark indicating the sound emission level guaranteed by the maker.

Article 3

No Member State may prohibit, on grounds relating to the permissible sound emission level, the sale, entry into service or use for its intended purpose of any new current generator for power supply which is accompanied by the certificate of conformity referred to in Article 2.4 above, or which is marked as described in Article 2.5 above.

Article 4

Amendments necessary to adjust the requirements of the Annexes to take account of technical progress shall be adopted in accordance with the procedure laid down in Article 12 of the Council Directive of

../..

Article 5

Each Member State shall communicate to the other Member States and the Commission the list of the authorities authorized to carry out type-approval examination on current generators for power supply and to issue EEC type-approval certificates with respect to the permissible sound emission level ; it shall also forward a list of the recipients of the correspondence referred to in Articles 6, 8 and 9 of the Council Directive of

Notification shall also be made to the Member States and to the Commission of any changes in such lists.

Article 6

Entry into force :

1. The Member States shall adopt and publish, before 1 January 1978, provisions containing the requirements to comply with this Directive and shall forthwith inform the Commission thereof.
   They shall apply these provisions with effect from 1 July 1978.

2. Once notification of this Directive has been effected, the Member States shall in addition inform the Commission, in sufficient time to enable it to submit its comments, of all draft laws, regulations or administrative provisions which they intend to adopt in the field covered by this Directive.

Article 7

This Directive is addressed to the Member States.

Done at Brussels, (date)

For the Council,

The President :

ANNEX I

SCOPE

This test method is applicable to current generators for power supply ; it lays down the test procedures for the measurement of the sound emission level of these devices with a view to EEC type approval. These procedures are in conformity with the requirements specified in the Annex to the Council Directive of on the "measurement of the sound level emission of constructional plant and equipment".

TEST METHOD FOR CURRENT GENERATORS FOR POWER SUPPLY

The whole of the Annex to the Council Directive of on the measurement of the sound emission level of constructionsl plant and equipment* is applicable to current generators for power supply subject to the special method of application described below :

Article 5.2 : Source location

The source to be tested shall be installed and mounted on a plane formed by a hard, reflecting surface of dimensions such that the projections of the microphones are within the measurement area. The hard surface shall be of concrete, asphalt or a similar dense material. In locating the source within the site where the test will take place, it is important that sufficient space be allowed for the measurement surface to enclose the machine in accordance with the requirements of Section 6.1.

The source shall be placed at a sufficient distance from any reflecting surface so that the conditions given in the Annex are satisfied on the test site.

* Reference : OJ C82 of 14 April 1975

../..

Article 5.4 : Operation of source during test

During the acoustic measurements, the current generator for power supply shall have reached its equilibrium temperature and be operating in stable conditions.

The current generator for power supply shall deliver, on a non-inductive resistance load, three-quarters of the load corresponding to the power of the generator in kW defined on the basis of the rated power in kVA, account being taken of the power factor (cos ϕ) chosen for the generator definition (0.8 or 1).

The support-mounted generators (skid-mounted) shall be placed on trestles 40 cm above the measurement plane.

Article 6.1.2 : Selection of measurement surface

The measurement surface to be used for the test shall be a hemisphere with a radius of 4 m when the greatest dimension of the generator to be tested is not greater than 1.5 m.

It shall be a hemisphere with a radius of 10 m when the greatest dimension of the generator to be tested is greater than 1.5 m but not greater than 8 m.

When the greatest dimension of the generator to be tested exceeds 8 m, the measurement surface shall be a hemisphere with a radius of 15 m. However, the measurements shall then only be taken at the 8 points on the lower horizontal plane.

Annex B gives the coordinates for the measuring points.

The centre of the hemisphere shall be the vertical projection on the reflecting plane of the geometrical centre of the source (see Annex B).

Article 6.2.2. need not be taken into consideration

Annex B

Article B.2. need not be taken into consideration.

ANNEX II

Model of information document for a type of current generator for power supply with respect to EEC type approval of the permissible sound emission level

0. General

0.1 Make (name of undertaking)
0.2 Model and commercial description (mention any variants)
0.3 Type
0.4 Category
0.5 Name and address of manufacturer
0.6 Name and address of manufacturer's authorized representative (if any)
0.7 Location of statutory data plates and inscriptions and method of fixing

1. Dimensions and physical appearance :

1.1 Length and width of the casing, height above ground
1.2 Physical appearance of the generator : support-mounted (skid-mounted) - trailer

2. Operation :

2.1 Make, type and speed of drive motor
2.2 Make and type of alternator
2.3 Frequency of current delivered
2.4 Apparent power in kVA
2.5 Actual power in kW
2.6 Power factor